

The Lost Art of Spelling:
What is the normal progression of spelling skills?

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What is spelling?

- ▶ Opposite of reading, somewhat!
- ▶ A sound/meaning/symbol relationship.
- ▶ An integration of:
 - ▶ Phonological knowledge,
 - ▶ Morphological knowledge,
 - ▶ Knowledge of semantics, and
 - ▶ Knowledge of orthography.
- ▶ An awareness of and exact memory for letter patterns and words.
- ▶ The most difficult skill to remediate.

Why do we need to know the structure of the language?

- ▶ English is an alphabetic system.
 - ▶ "Spelling is word form written down." (Moats, 1995)
 - ▶ English uses over 170 graphemes to spell 42 phonemes.
 - ▶ Hanna, Hanna, Hodges, and Rudorf (1966)
- ▶ As teachers, we must know our language thoroughly to address the confusions held by our students.
- ▶ Our students need direct instruction in the rules that govern our language.

Orthographic Rules

- ▶ Rules that determine permissible sequences and letter uses.
 - ▶ Some letters are never doubled: h, i, j, g, u, v, w, x, y.
 - ▶ Some letters are never used in final position: i, j, g, u, v.
 - ▶ Certain letters do not occur in sequence: skr.
- ▶ E acts as a marker in English.
 - ▶ ve in final position allows the final (v) without breaking the rule.
 - ▶ E in v-e indicates a long vowel sound.
 - ▶ Final e keeps some words from appearing plural: *please, house, mouse*.

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Good spellers vs. poor spellers

Good Spellers

- More sensitive to language structure; have good orthographic memory.
- Able to think about and manipulate language.
- Able to simultaneously draw support from their awareness of syntax, morphology, and semantics.
- Learning to spell is natural, neurologically they are able to learn through exposure to written language.

Poor spellers

- Have difficulty noticing the structure of the language; have poor orthographic memory.
- Have difficulty manipulating language.
- Do not possess the ability to deal with several layers of language simultaneously.
- Learning requires systematic, structured practice over a long period and nets only modest success.

Carreker & Moats

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Difficulty with Spelling Vowels in Normally Developing Children:

- ▶ Vowels produce more errors than consonants.
- ▶ Short vowels are difficult to discriminate and to associate with symbols.
- ▶ Long vowel patterns are difficult to remember.
- ▶ Pronunciations vary because of surrounding sounds. (The a in *sank* is nasalized.)
- ▶ Vowel spellings are not mastered by most children until fourth grade.
- ▶ In all grades through 6th, r-controlled vowels and "vowel markers" such as *gait* and *gate* are more difficult than other spelling patterns.

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Difficulty with Spelling Consonants in Normally Developing Children:

- ▶ Consonant blends are more difficult than single consonants.
 - ▶ Omissions of consonant sounds from blends are seen through the 6th grade.
- ▶ Pronunciation may vary due to position in the word. (The *(p)* is different in *pot*, *spot*, and *top*.)
- ▶ In all grades through 6th, consonant doubling (*rabbit* and *running*) is more difficult than other spelling patterns.
- ▶ Spelling is a difficult skill for many:
 - ▶ According to the Wide Range Achievement Test normative tables, the average adult with a high school education spells at the 8th grade level.

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Analysis of Spelling Errors in Children with a Spelling Disability as Compared to Good Spellers

- ▶ A greater incidence in errors involving base words with suffixes.
- ▶ More errors were made with consonant clusters.
- ▶ Deletion of schwa vowels from unstressed syllables on nonsense word spelling was greater.

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Stages in Spelling Development

- ▶ Pre-phonetic
 - ▶ Drawing to pretend writing
 - ▶ Lack of understanding of the alphabetic principle
 - ▶ May think that the size of the word reflects the size of the object

▶ Moats, 1995

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Stages in Spelling Development

- ▶ Semi-phonetic
 - ▶ Understanding of the alphabetic principle emerging
 - ▶ The child realizes that spoken words are made of sounds that can be represented by print
 - ▶ Often begins at the syllable level
 - ▶ *b* for *be*,
 - ▶ Vowels may be omitted
 - ▶ *sd* for *seed*
 - ▶ *rudf* for *Are you deaf?*
 - ▶ *Pre-texting??*



▶ Moats, 1995

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Stages in Spelling Development

- ▶ Phonetic
 - ▶ Comes with more exposure to print and writing
 - ▶ Understands that each sound in a word is represented
 - ▶ “rule” knowledge develops
 - ▶ May spell *same* as *sam* until grasps the orthographic pattern of *Vce*
 - ▶ *jumpf* for *jumped*



▶ Moats, 1995

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Stages in Spelling Development

- ▶ Students transition to more accurate spelling as an awareness of letter patterns develops
- ▶ “Just as beginning readers need explicit teaching to become good readers, beginning spellers need explicit teaching to become good spellers.”
 - ▶ Carreker, 2011

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Need for Direct Instruction

- ▶ Students with spelling difficulties *usually* have greater difficulty with spelling that makes heavy demands on phonological awareness and specific recall of letter sequences.
- ▶ The increased incidence of this type of error suggests that direct instruction in **phonological and morphological awareness** needs to be taught early on to help these students move forward with spelling skills.
 - ▶ Moats, 69.

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Focus on Phonological Skills

- ▶ First some vocabulary!
 - ▶ Let's all speak the same language

phonology

- ▶ The study of sounds and how they work within their environment

phonemes

- ▶ The smallest unit of speech that makes one word distinguishable from another word.
- ▶ *cat* has three phonemes: (k), (ă), (t)
- ▶ *rope* has three phonemes: (r), (ō), (p)
- ▶ How many phonemes are in *hat*?
- ▶ How many phonemes in *slip*?

phonemic awareness

- ▶ The ability to recognize of the individual phonemes (individual sounds) and the ability to isolate or manipulate the individual sounds in words.
- ▶ For example:
 - ▶ Unblend “cat”
 - ▶ Blend together (k) (ă) (p)
- ▶ More on this later!

phonological awareness

- ▶ The awareness of the individual phonemes (sounds) and the structure of those phonemes in words.
- ▶ Includes the ability to rhyme, count syllables, detect first, middle, and last sounds and to segment, add, delete, and substitute sounds in words.
- ▶ For example:

sound-symbol association

- ▶ The knowledge of the sounds in the English language and the corresponding letters and letter clusters
 - ▶ Must be taught visual to auditory *and* auditory to visual

the alphabetic principle

- ▶ The relationship between letters, in a left to right orientation, and phonemes (sounds) ordered in a specific temporal sequence in a spoken word.
- ▶ This is a foundational understanding needed for spelling and for reading.
- ▶ The preceding skill, or core skill, is phonological awareness

Start with the core!

- ▶ Phonological Awareness
- ▶ A phoneme is the smallest unit of sound that distinguishes one word from another
 - ▶ Cat has three (k) (ā) (t)
 - ▶ Shoot has three (sh) (oo) (t)
- ▶ Phonemic awareness is being cognizant of those sounds.
 - ▶ If you knew that cat had three phonemes you have phonemic awareness

So...

- ▶ *Phonological* awareness adds the “logos” or study factor:
 - ▶ You are aware of the sounds and you can manipulate or play with those sounds.
 - ▶ Segment (or separate) the sounds in *shoot*.
 - ▶ Give me a word that rhymes with *cat*.
 - ▶ Switch the initial and final sounds in *cat*.
 - ▶ People with strong PA are good at “Pig Latin.”

Why is it so important?

- ▶ Liberman found a strong correlation between PA ability and later reading ability.
- ▶ Uhry has done studies that show a dramatic growth in nonword reading skills after PA training.
- ▶ PA appears to be an underlying skill that is required for reading.
- ▶ Instruction in PA has been shown to have a dramatic and lasting impact on acquiring reading skills.

Progression of phoneme awareness development

Age typically mastered (in years)	Skill
3	Recitation of rhymes, rhyming by pattern, alliteration
4	Syllable counting (50% can count syllables)
5	Syllable counting (90% can count syllables) Phoneme counting (fewer than 50% can count phonemes)
6	Initial consonant matching Blending 2 to 3 phonemes Phoneme counting (70% can count phonemes) Rhyme identification Onset-rime division
7	Blending 3 phonemes, segmentation of 3 to 4 phonemes (blends), phonetic spelling, phoneme deletion
8	Consonant cluster segmentation Deletion within clusters

Speech to Print, Louisa Moats, Brookes Publishing, page 147.

What is the hierarchy of PA skills?

In each of the following categories,
recognition precedes production

- ▶ Rhyming
- ▶ Matching by rime and alliteration
- ▶ Syllable splitting
- ▶ Full phoneme segmentation
- ▶ Manipulation of phoneme
 - ▶ These will be our focus

Activities that address full phoneme
segmentation

- ▶ Begin with tiles, felt squares, pennies, etc.
 - ▶ Separate the sounds in *cat*
 - ▶ (k) (a) (t)
 - ▶ Move from simple to more complex words
- ▶ Move to letters
 - ▶ This reinforces the alphabetic principle
 - ▶ Move from simple to more complex words

Which activities address
manipulation of phonemes?

- ▶ Begin with deletion of initial phonemes
 - ▶ Give me *cat* without the (k) sound = (ăt)
- ▶ Move to deletion of final sounds
 - ▶ Give me *band* without the (d) sound = (băn)
- ▶ Move to exchanging sounds
 - ▶ Reverse the initial and final sounds in *cat* = (tăc)

Move to short VC words

- ▶ Move to CVC words
- ▶ Separate the initial sound and the word family
 - ▶ Also referred to as "segmenting onsets"
 - ▶ mat = (m) (ăt)
 - ▶ top = (t) (öp)
- ▶ Then separate individual sounds
 - ▶ up = (ü) (p)
 - ▶ itch = (î) (ch)

Move to manipulation of sounds within words.

- ▶ Say a word.
 - ▶ Students echo
- ▶ Unblend together
- ▶ Pull colored squares (or other manipulative)
- ▶ Verify by touching and saying sounds
- ▶ Make a change
 - ▶ One phoneme at a time!
- ▶ Continue in a chain

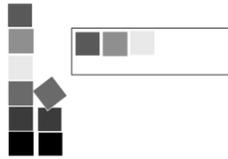
Start by setting up squares for yourself and your students.



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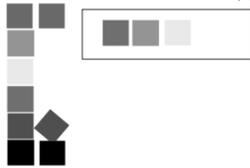
For example

T: Show me tap
S: tap
T & S: (t)(ā)(p)
(pull squares, note that the green is at an angle, as it is the next one that we will use.)



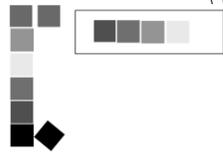
For example

T: if this is tap
T & S: (t)(ā)(p)
T: show me rap
T & S: (r)(ā)(p)
(pull, exchange squares. Note that the blue is now the next to pull.)



For example

T: if this is rap
T & S: (r)(ā)(p)
T: show me trap
T & S: (t)(r)(ā)(p)
(pull, add square. Note that the black is now the next to pull.)



For example

T: if this is trap
T & S: (t)(r)(ā)(p)
T: show me strap
T & S: (s)(t)(r)(ā)(p)
(pull, add square. Note that
the red is now the next to
pull.)
At the end, ask “what did we
do?”
We added the sound (s) in the
initial position.



Now we need to attach those sounds to
letters.
The Alphabetic Principle comes into play!

- ▶ Understanding that letters represent sounds of a spoken language is essential for learning to read in any alphabetic language.
 - ▶ Chall, 1966
- ▶ Letter knowledge is the foundation of reading
- ▶ Students must have a stable “object” to attach the elusive sound

Purpose of Alphabet Activities

- ▶ Letter recognition and sequence
- ▶ Spatial orientation
- ▶ Rapid naming of letters
- ▶ Lead student to “instant, automatic, and reliable” use of the alphabet as a tool
- ▶ Provide an “object” as a base for those sounds!

Importance of Letter Recognition
(Birsh, 86)

- ▶ Letters make reading possible
- ▶ Readers who readily recognize letters can begin recognizing orthographic patterns
 - ▶ Orthographic meaning the structure or patterns of letters as they appear in words
- ▶ Letter name knowledge forms a basis for learning letter-sound relationships
 - ▶ Uhri concluded that letter knowledge helped build memory of sound

Reinforcement of Alphabet Knowledge

- ▶ Students need to know the types of letters
 - ▶ Vowels and consonants
 - ▶ You will need mirrors for this!
- ▶ Start with two kinds of sounds
 - ▶ Sounds that cause our mouths to be closed or partially closed, blocking the sound
 - ▶ The airflow is obstructed
 - ▶ Consonants
 - ▶ Sounds that are made with our mouths open
 - ▶ The airflow is unobstructed
 - ▶ Vowel sounds

Two Kinds Of Sounds

- ▶ Students discover the two types of sounds independent of the letter names first
- ▶ You will need a mirror!
- ▶ Say the sounds (ă), (ě), (ĩ), (õ), (ũ)
 - ▶ Discover that your mouth is open, the airflow is unobstructed
 - ▶ Feel your throat as you say the sounds
 - ▶ The vibration that we feel means that the sound is *voiced*
 - ▶ Sounds that are open and voiced, are called vowels

Two Kinds Of Sounds

- ▶ Students discover the two types of sounds independent of the letter names first
- ▶ You will need a mirror!
- ▶ Say the sounds (t), (p), (s), (k)
- ▶ Discover that your mouth is blocked or partially blocked (the airflow is obstructed)
 - ▶ Feel your throat as you say the sounds
 - ▶ Since we do not feel a vibration, that the sound is *unvoiced*
 - ▶ Sounds that are blocked and unvoiced, are called consonants
- ▶ But wait!

Two Kinds Of Sounds

- ▶ Students discover the two types of sounds independent of the letter names first
- ▶ You still need a mirror!
- ▶ Say the sounds (d), (b), (z), (g)
- ▶ Discover that your mouth is blocked or partially blocked (airflow is obstructed)
 - ▶ Feel your throat as you say the sounds
 - ▶ Since we feel a vibration, that the sound is *voiced*
 - ▶ Sounds that are blocked are called consonants
 - ▶ Consonant sounds can be either voiced or unvoiced

Two Kinds Of Sounds

- ▶ Once students are secure with the difference in sounds, move to identifying the sounds made by letters
- ▶ Start with letter names
 - ▶ *a, e, i, o, u*
 - ▶ Our mouths stay open, and these sounds are voiced when we name those letters, we call these vowels
 - ▶ *b, d, m, p, t*
 - ▶ Our mouths block, or partially block the sound when we name those letters

Introducing a sound to symbol relationship

- ▶ **Auditory discovery:**
 - ▶ Dictate a list of words illustrating the same sound
 - ▶ *tap, stop, it*
- ▶ **Analysis**
 - ▶ What did you hear the same?
 - ▶ What type of sound? (vowel or consonant)
- ▶ **Visual discovery**
 - ▶ Write the words on the board, naming the letters as you write
 - ▶ What do you see that's the same?
- ▶ **Recognition/verbalization of pattern**
 - ▶ When we hear (t), we spell it with the letter t

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Introducing a sound to symbol relationship

- ▶ **Auditory discovery:**
 - ▶ Dictate a list of words with known sound/symbol relationships illustrating the same pattern
 - ▶ *it, tip, pit, dip*
- ▶ **Analysis**
 - ▶ What did you hear the same?
 - ▶ What type of sound? (vowel or consonant)
- ▶ **Visual discovery**
 - ▶ Write the words on the board, naming the letters as you write
 - ▶ What do you see that's the same?
- ▶ **Recognition/verbalization of pattern**
 - ▶ When we hear (i) before a consonant sound, we spell it with an i

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Now we need an expanded chart.

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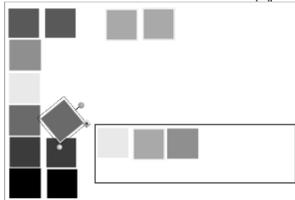
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S: tap
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(pull squares, note
the pink vowel
sound and that the
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angle, as it is the
next one that we
will use.)



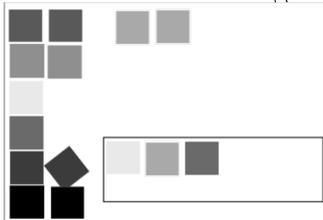
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T: show me rap
T & S: (r)(ă)(p)
(pull, exchange squares.
Note that the green is
now the next to pull.)



For example

T: if this is rap
T & S: (r)(ă)(p)
T: show me ran
T & S: (r)(ă)(n)
(pull, exchange squares.
What did we do?
(We traded (p) for (n) in
the final position.)



Let's practice!

How does this relate to spelling?

T: Show me tap
S: tap
T & S: (t)(ā)(p)
(pull squares, note the pink vowel.)
T: Now touch and spell.
T & S: t, a, p
T: name and write

Warning! Only use sound to symbol relationships that have been taught! (More on this in the next session!)

Strong Indicators for Spelling Success!

- ▶ Phonological Awareness
- ▶ Letter recognition
 - ▶ These should be addressed concurrently
- ▶ Understanding of the alphabetic principle
- ▶ Instruction needs to continue beyond kindergarten!
- ▶ Now what?
 - ▶ Spelling!
